

III. Remarks

Claims 1-20 were previously pending.

Claim 2 has been canceled without prejudice or disclaimer.

Claims 1, 3, 4 and 14 have been amended.

Claims 21-24 have been added.

As a result, claims 1 and 3-24 are pending herein.

Favorable consideration of claims 1 and 3-24 is respectfully requested.

Rejection Under 35 U.S.C. §102(e)

Claims 1-3 stand rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,869,571 to Ingenhoven et al. (“Ingenhoven ‘571”). As noted above, claim 2 has been canceled without prejudice or disclaimer. Insofar as it may be applied against the present claims, this rejection is respectfully traversed.

The PTO provides in MPEP §2131 that:

“[t]o anticipate a claim, a reference must teach every element of the claim.”

Therefore, to support a rejection under 35 U.S.C. §102 with respect to a claim, Ingenhoven ‘571 must contain every element of the claim.

Amended claim 1 recites:

A dispensing cylinder comprising: a small diameter section, a large diameter section which communicates with said small diameter section and is capable of holding fluids, a sliding section provided in a slidable manner within said large diameter section which enables fluid to be sucked and discharged to and from said large diameter section through said small diameter section, and a connection section which connects said sliding section in a detachable manner to a suction and discharge mechanism which drives said sliding section;

wherein the sliding section comprises:

a disk-shaped piston which slides inside the large diameter section;

a rod, one end of which is secured to the piston, wherein the connection section is provided at the other end of the rod; and

a tube supported by an end of the large diameter section that axially opposes the small diameter section, the tube having a diameter and being positioned, relative to the rod, such that:

the rod passes through the inside of the tube,

relative axial movement between the rod and the tube is permitted,

the rod is substantially axially aligned with the large diameter section at the end of the large diameter section that axially opposes the small diameter section, and

the tube is axially positioned between the piston and the connection section and thereby prevents the piston from exiting the large diameter section through the end of the large diameter section that axially opposes the small diameter section.

Amended claim 3 depends directly upon and includes the subject matter of claim 1.

Ingenhoven '571 discloses a dispensing device 1 that includes a cylindrical chamber 3 and a tip 8 which communicates with the chamber 3 via a line 7 at one end of the chamber 3. A piston 4 is movable within the chamber 3. A piston drive 5 drives the piston 4 and includes a spindle 11, a plate 12 that is movable with the spindle 11, and a pulse generator 6 that connects the plate 12 to a plate 13, which, in turn, is connected to the piston 4. A motor 17, which drives the spindle 11, is positioned at the end of the device 1 that axially opposes the line 7. (See, e.g., Fig. 2 of Ingenhoven '571).

Contrary to the subject matter of amended claim 1, however, Ingenhoven '571 does not disclose a sliding section comprising a disk-shaped piston which slides inside a large diameter section; a rod, one end of which is secured to the piston, wherein a connection section is provided at the other end of the rod; and a tube supported by an end of the large diameter section that axially opposes the small diameter section, the tube having a diameter and being positioned, relative to the rod, such that: the rod passes through the inside of the tube, relative axial movement between the rod and the tube is permitted, the rod is substantially axially aligned with the large diameter section at the end of the large diameter section that axially opposes the small diameter section, and the tube is axially positioned between the piston and the connection section and thereby prevents the piston from exiting the large diameter section through the end of the large diameter section that axially opposes the small diameter section.

As a result, the rejection of claims 1 and 3 based on 35 U.S.C. §102(e) cannot be supported by Ingenhoven '571 and should be withdrawn.

Rejections Under 35 U.S.C. §103(a)

Claims 4-7, 13-15 and 18-20

Claims 4-7, 13-15 and 18-20 stand rejected under 35 U.S.C. §103(a) over Ingenhoven '571 in view of WO01/53839 ("Tajima"). Insofar as it may be applied against the present claims, this rejection is respectfully traversed.

As the PTO recognizes in MPEP §2142:

The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness.

The Examiner clearly cannot establish a *prima facie* case of obviousness in connection with amended claim 4 for the following reasons.

35 U.S.C. §103(a) provides that:

[a] patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains

(Emphasis added).

Amended claim 4 recites:

A large capacity dispensing device comprising:

one or more dispensing cylinders, each of the dispensing cylinders comprising:

a small diameter section,

a large diameter section which communicates with said small diameter section and is capable of holding fluids,

a sliding section provided in a slidable manner within said large diameter section which enables fluid to be sucked and discharged to and from said large diameter section through said small diameter section, and

a connection section connected to the sliding section so that the sliding section is axially positioned between the connection section and the small diameter section;

a suction and discharge mechanism, the suction and discharge mechanism comprising:

an actuating part which connects to each of said connection sections in a detachable manner and drives said sliding sections, and

a non-actuating part comprising one or more fitting sections, each of which fits a respective one of said large diameter sections in a detachable manner to said suction and discharge mechanism to secure

said respective large diameter section to said suction and discharge mechanism;
 a container placement area in which a plurality of containers can be placed; and
 a movement section which enables said one or more dispensing cylinders to move relative to said container placement area.

As noted above, Ingenhoven '571 discloses that the piston 4 is movable within the chamber 3. The piston drive 5 drives the piston 4 and includes the spindle 11, the plate 12 that is movable with the spindle 11, and the pulse generator 6 that connects the plate 12 to the plate 13, which, in turn, is connected to the piston 4. The motor 17, which drives the spindle 11, is positioned at the end of the device 1 that axially opposes the line 7. (See, e.g., Fig. 2 of Ingenhoven '571).

Contrary to the subject matter of amended claim 4, however, Ingenhoven '571 does not disclose an actuating part of a suction and discharge mechanism which connects to a connection section in a detachable manner and drives the sliding section. The indicated portions of Tajima fail to cure the deficiencies of Ingenhoven '571 with respect to amended claim 4 because the indicated portions Tajima also do not disclose an actuating part of a suction and discharge mechanism which connects to a connection section in a detachable manner and drives the sliding section. Therefore, it is impossible to render the subject matter of amended claim 4 as a whole obvious based on any combination of Ingenhoven '571 and Tajima.

Claims 5-7 and 13 depend from and include the subject matter of amended claim 4, amended claim 14 is a method version of amended claim 4, and claims 15 and 18-20 depend from and include the subject matter of amended claim 14. Therefore, claims 5-7, 13-15 and 18-20 are allowable for at least the same reasons as noted above with respect to amended claims 4 and 14.

For all of the foregoing reasons, the rejection of claims 4-7, 13-15 and 18-20 under 35 U.S.C. §103(a) over Ingenhoven '571 in view of Tajima should be withdrawn.

Claims 8-10 and 16

Claims 8-10 and 16 stand rejected under 35 U.S.C. §103(a) over Ingenhoven '571 and Tajima, and further in view of U.S. Patent Application Publication No. 2003/0026732

(“Gordon”). Claims 8-10 and 16 depend from and include the subject matter of either amended claim 4 or amended claim 14. The deficiencies of Ingenhoven ‘571 and Tajima with respect to amended claims 4 and 14 are noted above. The indicated portions of Gordon do not overcome the deficiencies of Ingenhoven ‘571 and Tajima. Therefore, the rejection of claims 8-10 and 16 under 35 U.S.C. §103(a) over Ingenhoven ‘571 and Tajima and further in view of Gordon should be withdrawn.

Claims 11, 12 and 17

Claims 11, 12 and 17 stand rejected under 35 U.S.C. §103(a) over Ingenhoven and Tajima, and further in view of U.S. Patent No. 5,275,951 to Chow (“Chow ‘951”). Claims 11, 12 and 17 depend from and include the subject matter of either amended claim 4 or amended claim 14. The deficiencies of Ingenhoven ‘571 and Tajima with respect to amended claims 4 and 14 are noted above. The indicated portions of Chow ‘951 do not overcome the deficiencies of Ingenhoven ‘571 and Tajima. Therefore, the rejection of claims 11, 12 and 17 under 35 U.S.C. §103(a) over Ingenhoven ‘571 and Tajima and further in view of Chow ‘951 should be withdrawn.

New Claims

New Claims 21 and 23

New claims 21 and 23 depend from and include the subject matter of amended claims 4 and 14, respectively, and therefore are allowable for at least the same reasons as noted above with respect to amended claims 4 and 14. Each of new claims 21 and 23 further requires that the sliding section comprises:

- a disk-shaped piston which slides inside the large diameter section;
- a rod, one end of which is secured to the piston, wherein the connection section is provided at the other end of the rod; and
- a tube supported by an end of the large diameter section that axially opposes the small diameter section, the tube having a diameter and being positioned, relative to the rod, such that:
 - the rod passes through the inside of the tube,
 - relative axial movement between the rod and the tube is permitted,

the rod is substantially axially aligned with the large diameter section at the end of the large diameter section that axially opposes the small diameter section, and

the tube is axially positioned between the piston and the connection section and thereby prevents the piston from exiting the large diameter section through the end of the large diameter section that axially opposes the small diameter section.

Contrary to the subject matter of each of new claims 21 and 23, however, none of the indicated portions of Ingenhoven '571, Tajima, Gordon and Chow '951 discloses a sliding section comprising a disk-shaped piston which slides inside a large diameter section; a rod, one end of which is secured to the piston, wherein a connection section is provided at the other end of the rod; and a tube supported by an end of the large diameter section that axially opposes the small diameter section, the tube having a diameter and being positioned, relative to the rod, such that: the rod passes through the inside of the tube, relative axial movement between the rod and the tube is permitted, the rod is substantially axially aligned with the large diameter section at the end of the large diameter section that axially opposes the small diameter section, and the tube is axially positioned between the piston and the connection section and thereby prevents the piston from exiting the large diameter section through the end of the large diameter section that axially opposes the small diameter section.

Therefore, new claims 21 and 23 are allowable over Ingenhoven '571, Tajima, Gordon and Chow '951 for this reason alone, in addition to the reasons noted above with respect to amended claims 4 and 14.

New Claims 22 and 24

New claims 22 and 24 depend from and include the subject matter of amended claims 4 and 14, respectively, and therefore are allowable for at least the same reasons as noted above with respect to amended claims 4 and 14. Each of new claims 22 and 24 further requires that the sliding section comprise a tube supported by an end of the large diameter section that axially opposes the small diameter section, the tube comprising a flange; and that the fitting section comprise a cylindrical sandwiching member that is axially positioned between the flange of the tube and the end of the large diameter section that axially opposes the small diameter section, the cylindrical sandwiching member clamping the tube in an elastically energized state.

Contrary to the subject matter of each of new claims 22 and 24, however, none of the indicated portions of Ingenhoven '571, Tajima, Gordon and Chow '951 discloses a sliding section comprising a tube supported by an end of the large diameter section that axially opposes the small diameter section, the tube comprising a flange; and a fitting section comprising a cylindrical sandwiching member that is axially positioned between the flange of the tube and the end of the large diameter section that axially opposes the small diameter section, the cylindrical sandwiching member clamping the tube in an elastically energized state.

Therefore, new claims 22 and 24 are allowable over Ingenhoven '571, Tajima, Gordon and Chow '951 for this reason alone, in addition to the reasons noted above with respect to amended claims 4 and 14.

Conclusion

It is believed that all matters set forth in the Office Action mailed October 2, 2009 have been addressed. Applicants have made a diligent effort to advance the prosecution of this application by canceling claim 2 without prejudice or disclaimer, amending claims 1, 3, 4 and 14, adding claims 21-24, and submitting arguments in support of the patentability of claims 1 and 3-24. In view of all of the above, the allowance of claims 1 and 3-24 is respectfully requested. The Examiner is invited to call the undersigned at the below-listed telephone number if a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,



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